

# A CONTROLLER AND CONTROL METHOD FOR A HYBRID ELECTRIC VEHICLE POW- ERTRAIN

## Abstract

A parallel hybrid electric vehicle powertrain and control method wherein an internal combustion engine and an electric motor system define a split power operating mode, a generator drive mode and a parallel power mode. Provision is made, when the motor is inoperable, for preventing discharge of a battery in the electric motor system when the battery state-of-charge is low and for delivering power from the battery when the battery state-of-charge is greater than a predetermined value.